



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

September 10, 2004



National Aeronautics and
Space Administration

Upcoming Events:

- Meeting to develop the Integration Plan for AMS-02 at CERN - September 13 - 16, 2004 – Geneva
- Schedule and Status Meeting at STADCO - September 14, 2004 - Los Angeles
- Pre-meeting for the Thermal Control System (TCS) Delta Critical Design Review (Δ CDR) - September 21 - 22, 2004 - Milan, Italy
- Meeting to discuss CITE Maintenance Costs and the AMS-02 Avionics Functional Interface Test (FIT) - September 27 - 28, 2004 – KSC
- Thermal Control System (TCS) Delta Critical Design Review (Δ CDR) - October 18 - 19, 2004 – JSC
- AMS General Technical Interchange Meeting (TIM) - October 20 - 22, 2004 – JSC
- Electronics TIM and Uninterruptible Power Supply (UPS) CDR - November 1-5, 2004 – Taiwan
- STA Vacuum Case Delivery (on dock at STADCO) - November 10, 2004
- Flight Vacuum Case Delivery (on dock at STADCO) - November 27, 2004
- AMS General TIM - January 10 - 14, 2005 – KSC
- AMS-02 Avionics Functional Interface Test (FIT) - January 2005 – KSC
- Tracker Thermal Control System (TTCS) PDR - January 2005, CDR - April 2005
- AMS-02 Phase II Safety Review - March 2005 - JSC

Upcoming Tests:

- O-Ring Test Fixture (OTF) Vacuum Test - Suspended - J13
- Interface Plate Static Test - Date TBD - Location TBD
- Lower Joint Static Test - Date TBD - Location TBD
- STA Acoustic Test - Date TBD - ESTEC - Noordwijk, Netherlands (Schedule under review)
- STA Sine Sweep Test - Date TBD - INFN - Terni, Italy (Schedule under review)



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- Full Assembly Modal & Static Tests - Date TBD - IABG - Munich, Germany
- OTF Vacuum Test - On going - J13

Status:

- Alpha Magnetic Spectrometer (AMS) personnel met with representatives of Rothe Joint Venture (RJV) to discuss the drawings for the Primary Support Stand and a manufacturing plan for all AMS-02 activities in Bldg 10. Most of the drawing issues are related to interpretation of geometric dimensioning and tolerancing (GD&T). Further discussions are required to resolve the GD&T issues. Current plans call for RJV to clear a space in Bldg 10 in front of the center high bay door for the assembly of the Unique Support Structure - 02 (USS-02). The AMS Project has requested a dedicated, full time quality assurance (QA) inspector and Coordinate Measuring Machine (CMM) for the project. The inspector must be GD&T certified and fully trained on the CMM.
- Updates to the Project Technical Requirements Specification (PTRS) for the AMS Payload Integration Hardware (PIH) were completed and the document was uploaded to the AMS internal website for final review. Work was initiated on updates to the AMS-02 Experiment/Vacuum Case Payload Integration Hardware (PIH) Interface Control Document (ICD).
- Dispositions are being prepared for three discrepancy reports (DRs) received from STADCO. The DRs were written against the Vacuum Case Upper and Lower Support Rings to document minor machining errors. The DRs are being dispositioned to use the parts "as-is".
- A member of the Lockheed Martin AMS Team traveled to Los Angeles to support weld development activities at STADCO. A separate report will be prepared and submitted on the status of the welding.
- Vacuum Case Milestones

<u>Contract Deliverable</u>	<u>Due Date</u>	<u>Status</u>
First Article Conical Flange Complete	July 2004	(Machining complete, metal finish in work)
Weld Fixture Complete	August 2004	(Currently in use for rolled ring weld tests)
STA Support Rings Complete	September 2004	(Machining complete, metal finish in work)
Weld Development Complete	September 2004	(Rolled ring weld test in work)
STA Conical Flanges Complete	September 2004	(Machining complete, metal finish in work)
Flight Support Rings Complete	September 2004	
First Article Weld Complete	September 2004	
Flight Conical Flanges Complete	September 2004	
Shipping Fixture Complete	October 2004	(CDR complete)



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STA Line Drill Operations Complete	October 2004
STA Match Drill Procedure Complete	October 2004
STA Weld Complete (for proof test @ STADCO)	October 2004
STA Vacuum Case Delivery (on dock at STADCO)	November 10, 2004
Flight Vacuum Case Delivery (on dock at STADCO)	November 27, 2004